

Common Name: **Bocaccio**



Scientific name: *Sebastes paucispinis*

Photo Credit: Dr. M. Yoklavich, NMFS-NWFSC

Area of Concern: California waters (possibly west coast of North America)

Year First Listed as a "Species of Concern": 1999

Brief Species Description:

A large (length to 90cm) piscivorous rockfish ranging from northern Baja California to Alaska, thought to consist of two partially isolated populations: a southern population off California, and a northern population off Washington and British Columbia. They prefer rocky habitats from 40 to 300 m, but may occur in nearly all habitats. Young (1-3 yr) bocaccio are relatively pelagic, and become more demersal with age (maximum age 45 yr). They are a component of catches by nearly every fishing gear, and are difficult to avoid.

Rationale for "Species of Concern" Listing:

Demographic and Diversity Concerns:

The main reason for listing was the 97% decline in abundance from ca. 1970 to the late 1990's. Like most long-lived west coast rockfish (*Sebastes* spp.), productivity is low and the stock is not capable of sustaining "conventional" levels of fishing pressure.

Factors for decline:

The primary reason for decline is overfishing, which ended in the late 1990s (Figure 1) A secondary factor is an adverse environmental regime that was associated with recruitment failures from 1989 to 1998 (Figure 2). Overfishing ended in 1998, and the ocean climate is thought to have returned to "normal" conditions for recruitment, judging by a very strong 1999 year class and evidence of good recruitment since then.

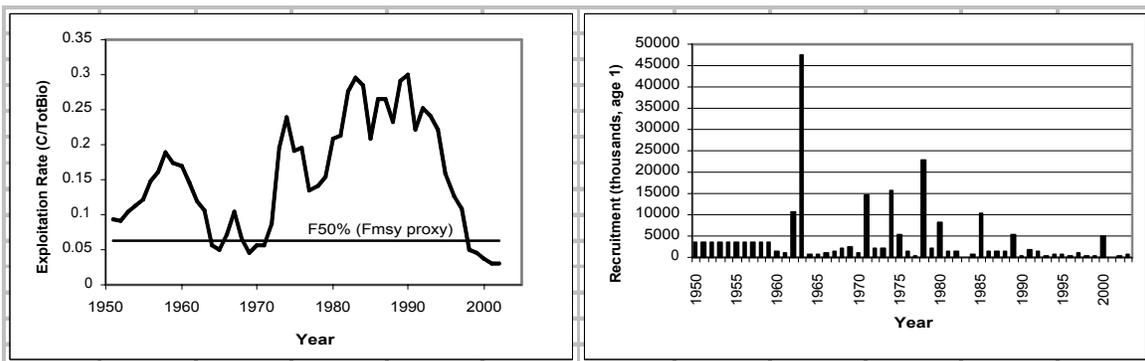


Figure 1. History of exploitation rates (catch/total biomass) of bocaccio.

Figure 2. History of estimated year class strengths (at age 1) of bocaccio.

Status Reviews/Research Completed or Underway:

On January 31, 2001, NMFS received a petition from the Natural Resources Defense Council, Center for Biological Diversity and Center for Marine Conservation to list the southern population of bocaccio as a threatened species under the Endangered Species Act. On June 14, 2001, NMFS published its 90-day finding that the petition presented substantial scientific and commercial information indicating that listing may be warranted, and announced the initiation of a formal status review as required by the ESA. To ensure a comprehensive review, NMFS concurrently solicited additional information and comment from the public on historical abundance, current abundance, factors contributing to population declines, sources of mortality, habitat use, habitat condition, factors affecting habitat condition, and distinctness of the southern population. In addition, NMFS solicited information regarding the adequacy of bocaccio conservation efforts and on areas that may qualify for critical habitat for bocaccio.

NMFS' Southwest Fisheries Science Center prepared a comprehensive status review for bocaccio. NMFS recognized a northern "distinct population segment" (DPS) and a southern DPS for bocaccio, and this is consistent with the current NMFS and Council management of bocaccio. NMFS' status review focused on the southern DPS, since this was the subject of the petition. The status review indicates that the southern population of bocaccio is currently at 3.6 percent of its pre-exploitation biomass, or approximately 1.6 million fish. The decline to this low level is due to a combination of overharvest and poor recruitment of young bocaccio into the population.

Although the southern population of bocaccio has substantially declined, NMFS has taken measures to ensure that it will not become endangered within the foreseeable future. The Pacific Fisheries Management Council (Council) has recommended that NMFS eliminate all directed fishing for bocaccio in 2003. The only allowable catch would be bocaccio taken as bycatch in other fisheries. In order to ensure that catch levels are not exceeded, the Council recommended that NMFS implement several management measures for 2003, including new depth-based management measures to prohibit bottom trawl, limit entry of fixed gear, and limit open access fishing in the times and areas where bocaccio are expected to occur. Bocaccio has an 80 percent chance of no further declines in 100 years, and the species is expected to rebuild in approximately 170 years, with NMFS' implementation of the Council's proposed measures, in addition to measures being implemented by the State of California. NMFS believes that the catch rate recently adopted by the Council will prevent bocaccio from becoming endangered within the foreseeable future.

Based on the review, NMFS concluded that listing is not warranted at this time (67 FR 69704, November 19, 2002), but that progress of the Pacific Fishery Management Council's bocaccio rebuilding program should be monitored. A new stock assessment in 2003, which includes new information, indicates that the stock is in better condition than was thought in 2002, and that long-term risk of further decline is very low.

For further information on this Species of Concern, or on the Species of Concern Program in general, please contact Ms. Marta Nammack, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910, (301) 713-1401, Marta.Nammack@noaa.gov; or Dr. Scott Rumsey, NMFS, Northwest Region, Protected Resources Division, 525 NE Oregon Street #500, Portland, OR 97232, (503) 872-2791, Scott.Rumsey@noaa.gov.

References: